

## SHORTER NOTE(S)

**New Records For The Pteridoflora Of The State Of Chiapas, Mexico.**—The State of Chiapas, México, is the second richest State of the country in regard to the diversity of pteridophytes, only surpassed by Oaxaca. Smith (Fl. Chiapas 2:1–370, 1981) treated 609 taxa, Breedlove (*Listados florísticos de México, IV, flora de Chiapas*, Instituto de Biología, UNAM, 1986) cited 675, and Riba et al. (Amer. Fern J. 77:69–71, 1987) added 16 new records for the State, totaling 691 taxa. As a result of intensive field work in the western part of the State, two more species are added, whose presence in Chiapas was already anticipated by Smith (Fl. Chiapas 2:1–370, 1981). They are *Hemionitis levyi* E. Fourn., previously collected in México (Oaxaca) and Central America, and *Doryopteris concolor* (Langsd. et Fisch) Kuhn var. *concolor*, otherwise known from southern México (Veracruz, Oaxaca) and widely distributed in Central and South America, Antilles, Asia, Africa, Australia, and Pacific Islands.

*Hemionitis levyi* (Pérez Farrera 670, CHIP, UAMIZ) was collected in the Municipality of Jiquipilas, El Campanario, 2.5 km N from Ejido Andrés Quintana Roo, north of the Biosphere Reserve La Sepultura, in tropical deciduous forest with species of *Bursera*, *Mimosa*, *Plumeria*, together with *Cheilanthes*, *Selaginella*, *Lygodium*, and several cacti, at 650 m altitude (16°37'N; 93°34'W) in the Central Depression de Chiapas. The specimens were found in small caves in the sandstone, with shallow soil. This species differs from *H. pinnatifida* Baker and *H. palmata* L. in its smaller size (leaves 2.5–16 cm long, 1.7–5 cm wide;

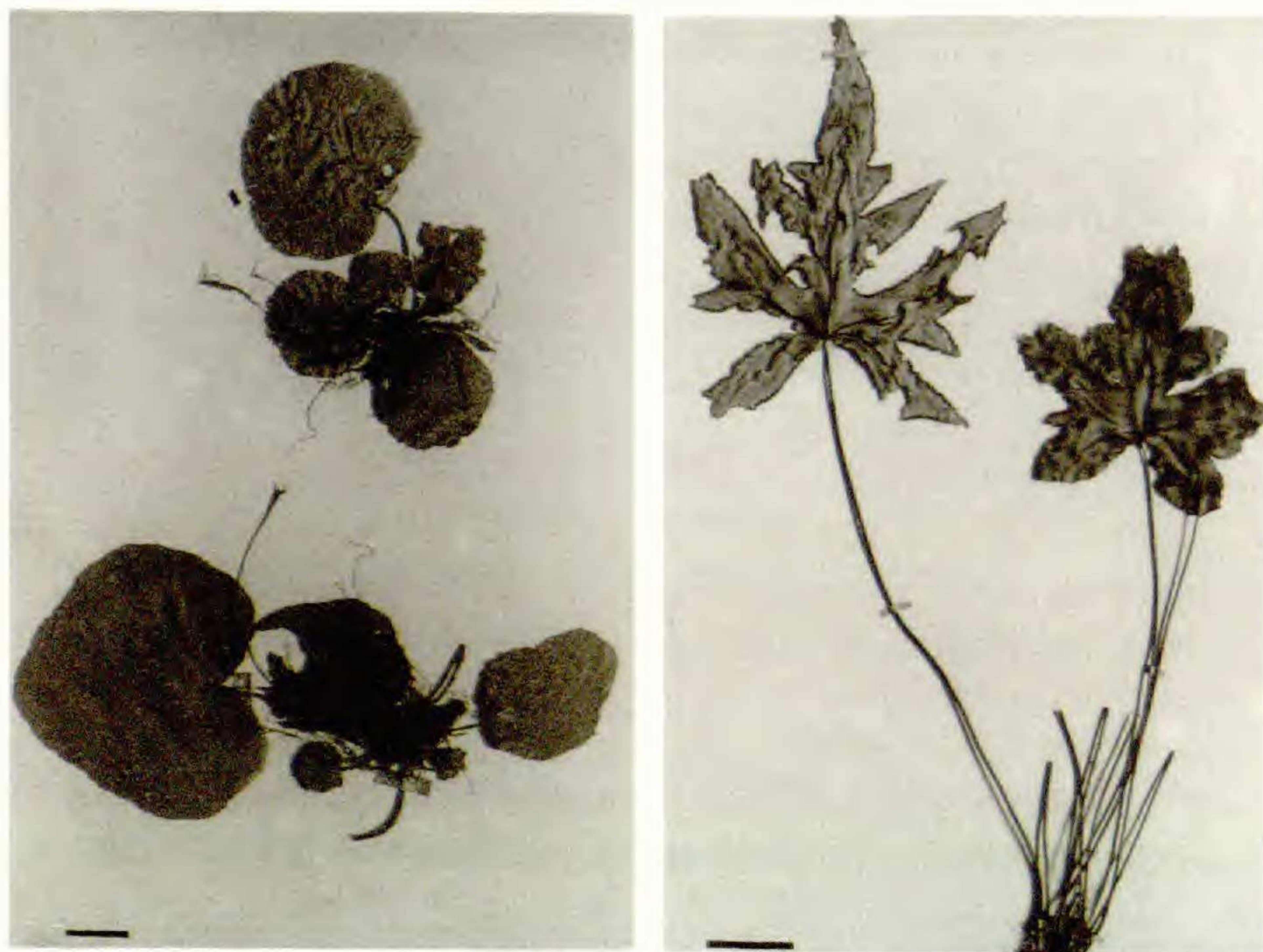


FIG. 1. Pressed voucher specimens of *Hemionitis levyi* (left) and *Doryopteris concolor* var. *concolor* (right), showing general frond morphology. Scale bars = 1 cm.



Fig. 1), simple blade, orbicular to shallowly 3–5 lobed, without proliferous buds, and with short laminar hairs.

*Doryopteris concolor* var. *concolor* (Pérez Farrera 442, CHIP, UAMIZ) was collected in the Municipality of Jiquipilas, Cerro Hojas Moradas, 6 km W Rancho Alpes, in the Biosphere Reserve La Sepultura, in tropical deciduous forest, 1300 m altitude (16°20'30"N; 93°42'30"W), in the Sierra Madre of Chiapas. This taxon (Fig. 1) differs from the other species of *Doryopteris* growing in Mexico, *D. palmata* (Willd.) J. Sm., in its free venation, lack of proliferous buds at the base of the blade, and the basically glabrous petiole.

A complete list of the plant species found in the Reserve is in preparation by the junior author.—RAMÓN RIBA (deceased), Universidad Autónoma Metropolitana-Iztapalapa, Ap. Postal 55-535. México, D. F. 09340, and MIGUEL ÁNGEL PÉREZ FARRERA, Instituto de Historia Natural, Depto. de Botánica, Calzada de los Hombres Ilustres s/n, Tuxtla Gutiérrez, Chiapas, México 29000.

**Production of Adventitious Buds on the Leaves in *Dicksonia sellowiana*.—**

The genus *Dicksonia* L'Her. has been successfully propagated through the culture of spores and gametophytes (Constantino et al., *Memorias del I Congreso Nacional sobre Biodiversidad, Cali, Colombia, Dic. 4-7 1994*, p. 303–308, 1995). No secondary or adventitious budding is known for this genus to date. Evidence is presented here for the first time on the production of foliar (petiolar) adventitious buds in *Dicksonia sellowiana* Hook., and on the feasibility of small scale propagation of the species using these buds.

I have been able to propagate *Dicksonia sellowiana* through the culture of adventitious buds that are naturally produced on the basal parts of the petioles, and which become especially noticeable on the old leaves (Figs. 1–2). Such buds are spontaneously produced in some populations inhabiting the West Cordillera of Colombia, at altitudes between 1900 and 2200 m, between Farallones de Cali and La Cumbre (in Depto. Valle). The species has been considered locally threatened for Colombia, according to Constantino et al. (1995) and Instituto Humboldt-Colombia (*Informe Nacional sobre el Estado de la Biodiversidad*, 1998), mainly due to over-exploitation of stems (for construction) and roots (as a substrate for orchid cultivation), but also as a consequence of land clearing.

Two subpopulations have been carefully observed in Depto. Valle: One at Reserva El Refugio-Torremolinos (Mpio. Dagua, 2000 m alt.), the other one at Reserva Himalaya (Mpio. Bitaco, 2050 m alt.). Both localities are currently being protected by private landowners and are located on the continental divide of the Colombian West Cordillera, slightly towards the Pacific side. Voucher material from El Refugio-Torremolinos has been deposited at FMB (Calderón-Sáenz 103).

The buds are produced on the adaxial side of the leaf bases, e.g. on the proximal and widest parts of the petioles. Although barely noticeable on young or even on mature leaves (they are covered by a dense layer of hairs), buds